

Date: Tuesday, 8/1/2006 11:31:20 AM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services  
 Job Number : 28078  
 Estimate Number : 11058  
 P.O. Number : N/A  
 This Issue : 8/1/2006 S.O. No. : N/A  
 Prsht Rev. : NC  
 First Issue : N/A Type : PURCHASED PARTS  
 Previous Run : 27970  
 Written By :  
 Checked & Approved By :  
 Comment : Est. C 02.11.26 Added P/O KJ

Drawing Name : 02.500 SUPPORT  
 Part Number : D28921  
 Drawing Number : D2892 REV A  
 Project Number : N/A  
 Drawing Revision : A  
 Material : N/A  
 Due Date : 8/30/2006 Qty: 8 Um: Each

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 PG PURCHASING



Comment: PURCHASING

Issue P/O: 1813

Description: D6104-003

Material: 17-4 PH SS (AMS 5643 OR AISI 630) as per Dwg D6104

Material release note required.

Blank size makes (2) D2891-1

C2 Loc 108/10

(8)

2.0 D6104003 17-4 SS Roundbar 3.25"OD



Comment: Qty.: 1.0000 Each(s)/Unit Total: 8.0000 Each(s)  
 Support

3.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Recieve &amp; Inspect for Transit Damage

Ensure Material Release Note is attached

P/O 6/8/28

(8)

4.0 MORI SEIKI MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI LATHE

Turn blank for Haas as per Folio FA082

Issue P.O. 20068

C2 Loc 091/12

(8)

5.0 QC1 INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

turn per DSK 077

Review + Inspect for transit damage


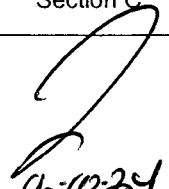
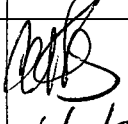

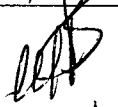
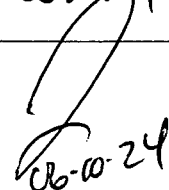
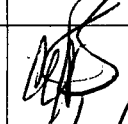
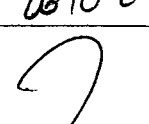
6/8/28

56

Inspected

Ep 6/6/20 x7

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                 |                          |
|------|------|--------------------|----|------|-----|---------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Mfg / Design<br>Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                 |                          |
|      |      |                    |    |      |     |                                 |                          |

| NCR: 28078 |      | WORK ORDER NON-CONFORMANCE (NCR)  |  |  |                 |  |  |  |
|------------|------|---|--|--|-----------------|--|--|--|
| DATE       | STEP | Description of NC<br>Section A  | Corrective Action Section B  |  |                 | Verification<br>Section C  | Approval<br>Design Mgr   | Approval<br>QC Inspector   |
|            |      |   | Initial<br>Design Mgr  | Action Description<br>Design Mgr   | Sign &<br>Date  |  |  |  |
| 06/10/24   | 6    | two parts scrap<br>the holes are<br>off the angles are<br>offset                      | <br>06/10/24  | Scrap parts destroyed.<br>Retake origin of<br>the machine                          | J.G<br>06/10/24 | <br>06-10-24  | <br>06/10/24  | <br>06-10-24  |
| 06/10/24   | 6    | the 0.258" holes<br>are oversize to<br>0.290" origin was<br>off so hole was<br>bigger | <br>06/10/24 | Holes not used for x-tube<br>support location / position.<br>Hole size acceptable. | J.G<br>06/10/24 | <br>06-10-24 | <br>06/10/24 | <br>06-10-24 |
|            |      |   |  |  |                 |  |  |  |

Part No: D2892-1 PAR #: N/A Fault Category: Red / Machine NCR: ☒ Yes ☐ No DQA: D Date: 06/10/27  
 NOTE: Date & initial all entries QA: N/C Closed: JA Date: 06/10/27

Date: Tuesday, 8/1/2006 11:31:20 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 02.500 SUPPORT

Job Number: 28078

Part Number: D28921

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

BAND SAW

BAND SAW



Comment: BAND SAW

Machine as per Folio FA082

Tumble & Deburr

J.G 06/10/22 12

7.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

J.G 06/10/22 12

8.0

QC8

SECOND CHECK



Comment: SECOND CHECK

m 06/10/24 12

9.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3

M101575

Y 06/10/26 x 12

10.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

LB 06/10/26 (12)

11.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: ST166

LB 06/10/26 (12)

12.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

A 06/10/27 (12)

Job Completion



C Ld 06/10/27

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                 |                          |
|------|------|--------------------|----|------|-----|---------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Mfg / Design<br>Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                 |                          |
|      |      |                    |    |      |     |                                 |                          |

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                  |                |                           |                        |                          |
|------|------|----------------------------------|-----------------------------|----------------------------------|----------------|---------------------------|------------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                  |                | Verification<br>Section C | Approval<br>Design Mgr | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Design Mgr       | Action Description<br>Design Mgr | Sign &<br>Date |                           |                        |                          |
|      |      |                                  |                             |                                  |                |                           |                        |                          |
|      |      |                                  |                             |                                  |                |                           |                        |                          |
|      |      |                                  |                             |                                  |                |                           |                        |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

|                                     |                             |
|-------------------------------------|-----------------------------|
| <b>DART AEROSPACE LTD</b>           | <b>Work Order:</b> 28078    |
| <b>Description:</b> Ø2.500 Support  | <b>Part Number:</b> D2892-1 |
| <b>Inspection Dwg:</b> D2892 Rev. A | <b>Page 1 of 1</b>          |

Inspect dimensions highlighted on inspection sheet drawing D2892 Rev. A/DSK077 Rev. A and record below:

|               |       |       |                | Recorded Actual Dimensions |       |       |       |    |      |
|---------------|-------|-------|----------------|----------------------------|-------|-------|-------|----|------|
| Dim           | Min   | Max   | Go/No Go Gauge | 1                          | 2     | 3     | 4     | By | Date |
| Lathe Section |       |       |                |                            |       |       |       |    |      |
| A             | 2.524 | 2.529 |                | 2.529                      | 2.529 | 2.529 | 2.529 |    |      |
| B             | 3.702 | 3.722 |                | 3.715                      | 3.713 | 3.712 | 3.712 |    |      |
| C             | 2.814 | 2.834 |                | 2.824                      | 2.824 | 2.824 | 2.824 |    |      |
| D             | 0.718 | 0.738 |                | 0.721                      | 0.721 | 0.726 | 0.724 |    |      |
| E             | 0.090 | 0.110 |                | 0.094                      | 0.092 | 0.094 | 0.096 |    |      |
| F             | 2.714 | 2.734 |                | 2.721                      | 2.722 | 2.722 | 2.724 |    |      |
| G             | 2.029 | 2.049 |                | 2.036                      | 2.036 | 2.038 | 2.039 |    |      |
| H             | 3.214 | 3.234 |                | 3.222                      | 3.222 | 3.221 | 3.221 |    |      |
| I             | 0.913 | 0.933 |                | 0.920                      | 0.926 | 0.919 | 0.922 |    |      |
| J             | 0.022 | 0.042 |                | 0.032                      | 0.032 | 0.032 | 0.032 |    |      |
| K             | 0.090 | 0.110 |                | 0.097                      | 0.098 | 0.098 | 0.097 |    |      |
| L             |       |       |                |                            |       |       |       |    |      |
| HAAS Section  |       |       |                |                            |       |       |       |    |      |
| AA            | 0.115 | 0.135 |                | 0.128                      | 0.127 | 0.128 | 0.127 |    |      |
| AB            | 0.290 | 0.310 |                | 0.297                      | 0.297 | 0.298 | 0.298 |    |      |
| AC            | 0.040 | 0.060 |                | 0.048                      | 0.047 | 0.047 | 0.047 |    |      |
| AD            | 0.115 | 0.135 |                | 0.122                      | 0.121 | 0.121 | 0.121 |    |      |
| AE            | 0.240 | 0.260 |                | 0.250                      | 0.250 | 0.250 | 0.250 |    |      |
| AF            | 0.188 | 0.193 | DT8706         | 0.190                      | 0.190 | 0.190 | 0.190 |    |      |
| AG            | 0.240 | 0.260 |                | 0.250                      | 0.250 | 0.250 | 0.250 |    |      |
| AH            | 1.126 | 1.146 |                | 1.145                      | 1.145 | 1.144 | 1.144 |    |      |
| AI            | 0.454 | 0.474 |                | 0.464                      | 0.463 | 0.463 | 0.464 |    |      |
| AJ            | 0.240 | 0.260 |                | 0.250                      | 0.250 | 0.250 | 0.250 |    |      |
| AK            | 0.053 | 0.073 |                | 0.063                      | 0.063 | 0.063 | 0.063 |    |      |
| AL            | 0.257 | 0.262 | DT8683         | 0.259                      | 0.259 | 0.259 | 0.259 |    |      |
| AM            | 1.663 | 1.683 |                | 1.677                      | 1.677 | 1.677 | 1.677 |    |      |
| AN            | 0.053 | 0.073 |                | 0.063                      | 0.063 | 0.063 | 0.063 |    |      |
| AO            | 0.022 | 0.042 |                | 0.032                      | 0.032 | 0.032 | 0.032 |    |      |
| AP            | 2.779 | 2.789 |                | 2.781                      | 2.781 | 2.781 | 2.781 |    |      |
| AQ            |       |       |                |                            |       |       |       |    |      |
| AR            |       |       |                |                            |       |       |       |    |      |
| Accept/Reject |       |       |                |                            |       |       |       |    |      |

|                              |                                |
|------------------------------|--------------------------------|
| Measured by: <u>En / S.G</u> | Audited by: <u>[Signature]</u> |
| Date: <u>06/16/22</u>        | Date: <u>06/10/24</u>          |

| Rev | Date     | Change    | Revised by | Approved    |
|-----|----------|-----------|------------|-------------|
| A   | 02.12.12 | New Issue | KJ/RF      | [Signature] |

|                                     |                             |
|-------------------------------------|-----------------------------|
| <b>DART AEROSPACE LTD</b>           | <b>Work Order:</b> 28078    |
| <b>Description:</b> Ø2.500 Support  | <b>Part Number:</b> D2892-1 |
| <b>Inspection Dwg:</b> D2892 Rev. A | <b>Page 1 of 1</b>          |

Inspect dimensions highlighted on inspection sheet drawing D2892 Rev. A/DSK077 Rev. A and record below:

|                      |       |       |                | Recorded Actual Dimensions |       |       |   |    |      |
|----------------------|-------|-------|----------------|----------------------------|-------|-------|---|----|------|
| Dim                  | Min   | Max   | Go/No Go Gauge | 1                          | 2     | 3     | 4 | By | Date |
| <b>Lathe Section</b> |       |       |                |                            |       |       |   |    |      |
| A                    | 2.524 | 2.529 |                | 2.529                      | 2.529 | 2.529 |   |    |      |
| B                    | 3.702 | 3.722 |                | 3.713                      | 3.713 | 3.713 |   |    |      |
| C                    | 2.814 | 2.834 |                | 2.824                      | 2.824 | 2.826 |   |    |      |
| D                    | 0.718 | 0.738 |                | 0.723                      | 0.720 | 0.721 |   |    |      |
| E                    | 0.090 | 0.110 |                | 0.094                      | 0.092 | 0.094 |   |    |      |
| F                    | 2.714 | 2.734 |                | 2.724                      | 2.720 | 2.722 |   |    |      |
| G                    | 2.029 | 2.049 |                | 2.037                      | 2.032 | 2.031 |   |    |      |
| H                    | 3.214 | 3.234 |                | 3.223                      | 3.222 | 3.221 |   |    |      |
| I                    | 0.913 | 0.933 |                | 0.929                      | 0.933 | 0.926 |   |    |      |
| J                    | 0.022 | 0.042 |                | 0.032                      | 0.032 | 0.032 |   |    |      |
| K                    | 0.090 | 0.110 |                | 0.097                      | 0.098 | 0.097 |   |    |      |
| L                    |       |       |                |                            |       |       |   |    |      |
| <b>HAAS Section</b>  |       |       |                |                            |       |       |   |    |      |
| AA                   | 0.115 | 0.135 |                | 0.128                      |       | 0.122 |   |    |      |
| AB                   | 0.290 | 0.310 |                | 0.297                      |       | 0.299 |   |    |      |
| AC                   | 0.040 | 0.060 |                | 0.048                      |       | 0.049 |   |    |      |
| AD                   | 0.115 | 0.135 |                | 0.122                      |       | 0.122 |   |    |      |
| AE                   | 0.240 | 0.260 |                | 0.246                      |       | 0.246 |   |    |      |
| AF                   | 0.188 | 0.193 | DT8706         | 0.190                      | 0.190 | 0.190 |   |    |      |
| AG                   | 0.240 | 0.260 |                | 0.250                      | 0.250 | 0.250 |   |    |      |
| AH                   | 1.126 | 1.146 |                | 1.145                      |       | 1.145 |   |    |      |
| AI                   | 0.454 | 0.474 |                | 0.464                      |       | 0.464 |   |    |      |
| AJ                   | 0.240 | 0.260 |                | 0.250                      | 0.250 | 0.250 |   |    |      |
| AK                   | 0.053 | 0.073 |                | 0.063                      | 0.063 | 0.063 |   |    |      |
| AL                   | 0.257 | 0.262 | DT8685         | 0.260                      | 0.259 | 0.260 |   |    |      |
| AM                   | 1.663 | 1.683 |                | 1.677                      |       | 1.677 |   |    |      |
| AN                   | 0.053 | 0.073 |                | 0.063                      | 0.063 | 0.063 |   |    |      |
| AO                   | 0.022 | 0.042 |                | 0.032                      | 0.032 | 0.032 |   |    |      |
| AP                   | 2.779 | 2.789 |                | 2.781                      |       | 2.782 |   |    |      |
| AQ                   |       |       |                |                            |       |       |   |    |      |
| AR                   |       |       |                |                            |       |       |   |    |      |
| <b>Accept/Reject</b> |       |       |                |                            |       |       |   |    |      |

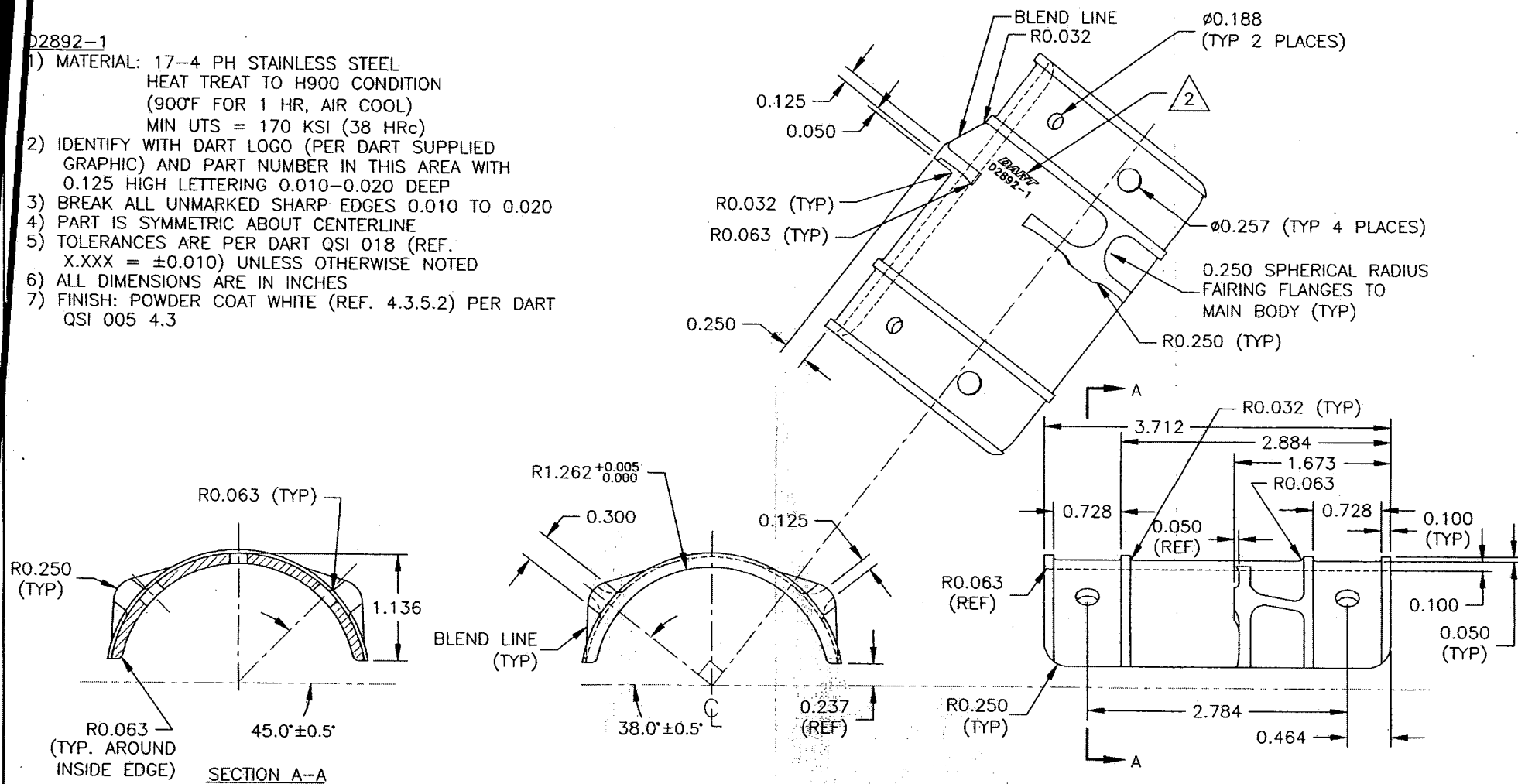
|              |           |
|--------------|-----------|
| Measured by: | En / J.C. |
| Date:        | 06/10/22  |

|             |          |
|-------------|----------|
| Audited by: | ml       |
| Date:       | 06/10/24 |

| Rev | Date     | Change    | Revised by | Approved |
|-----|----------|-----------|------------|----------|
| A   | 02.12.12 | New Issue | KJ/RF      | +        |

D2892-1

- 1) MATERIAL: 17-4 PH STAINLESS STEEL  
HEAT TREAT TO H900 CONDITION  
(900°F FOR 1 HR, AIR COOL)  
MIN UTS = 170 KSI (38 HRC)
- 2) IDENTIFY WITH DART LOGO (PER DART SUPPLIED GRAPHIC) AND PART NUMBER IN THIS AREA WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP
- 3) BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) TOLERANCES ARE PER DART QSI 018 (REF. X.XXX =  $\pm 0.010$ ) UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES
- 7) FINISH: POWDER COAT WHITE (REF. 4.3.5.2) PER DART QSI 005 4.3

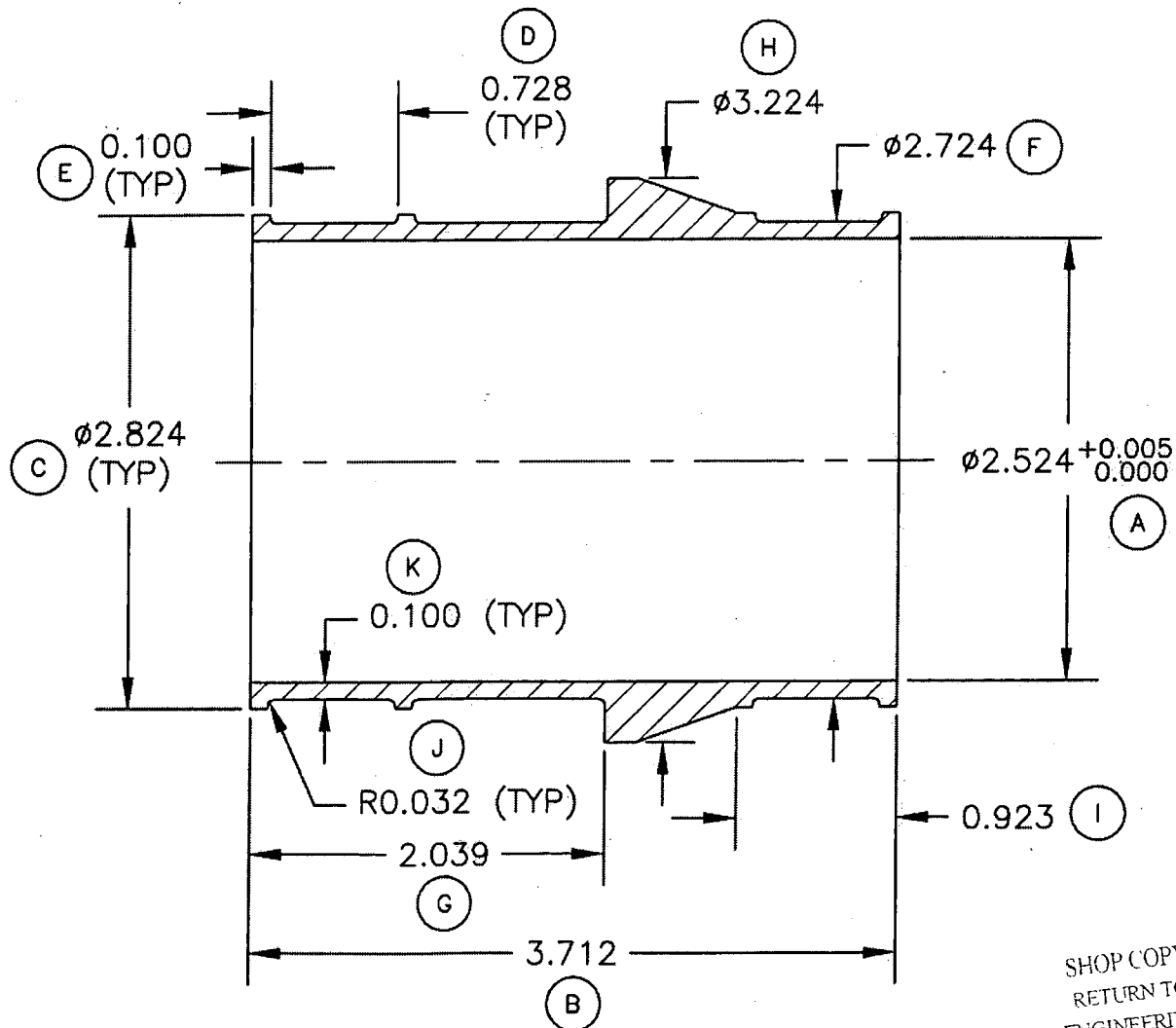


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WITHOUT NOTICE  
WORK ORDER  
NO. 28078

|  |          |  |                |
|--|----------|--|----------------|
| A  |          | 00.11.17   | NEW ISSUE      |
| DESIGN   | q        | DRAWN BY   | q              |
| CHECKED  | #        | APPROVED   | #              |
| DATE   | 00.11.17 | TITLE  | Ø2.500 SUPPORT |
| COPYRIGHT © 2000 BY DART AEROSPACE LTD.  |          | DART AEROSPACE LTD.<br>WILKESBURY, ONTARIO, CANADA |                |
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|  |          | REV. A<br>SHEET 1 OF 1                             |                |
|  |          | SCALE<br>1:1                                       |                |

**DART**

|                  |               |   |                        |
|------------------|---------------|---|------------------------|
| DESIGN<br>#      | DRAWN BY<br># | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA |                        |
| CHECKED<br>#     | APPROVED<br># | DRAWING NO.<br>DSK 077                            | REV. A<br>SHEET 1 OF 1 |
| DATE<br>03.05.20 |               | TITLE<br>TURNING DETAIL FOR D2892-1               | SCALE<br>1:1           |
| A                | 03.05.20      | NEW ISSUE   |                        |

RELEASED  
03.07.01D2892-1 TURNING DETAILSHOP COPY  
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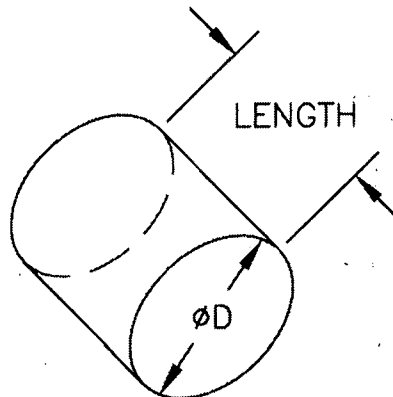
**DART**

|                  |              |  |                        |
|------------------|--------------|--|------------------------|
| DESIGN<br>RT     | DRAWN BY<br> | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA               |                        |
| CHECKED<br>      | APPROVED<br> | DRAWING NO.<br>D6104   | Rev. B<br>SHEET 1 OF 1 |
| DATE<br>02.11.25 |              | TITLE<br>ROUND BILLET, 17-4  | SCALE<br>NTS           |
| A                | 01.04.10     | NEW ISSUE  |                        |
| B                | 02.11.25     | CLARIFY ALLOY SPEC<br>ADDED D6104-009/-011<br>REDUCE LENGTH OF BILLETS |                        |

**RELEASED**

02.11.29

## SPECIFICATION CONTROL DRAWING



MATERIAL: 17-4 PH SS (AMS 5643 OR AISI 630) MIN UTS = 170 KSI (38 HRc)

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, DIAMETER x LENGTH (+0.030/-0.000) AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES

| Part No.    | Alloy                   | D<br>(Diameter) | Length |
|-------------|-------------------------|-----------------|--------|
| D6104-001   | 17-4 PH STAINLESS STEEL | Ø3.00           | 3.80   |
| D6104-003 ✓ | 17-4 PH STAINLESS STEEL | Ø3.25           | 3.80   |
| D6104-005   | 17-4 PH STAINLESS STEEL | Ø4.00           | 5.10   |
| D6104-007   | 17-4 PH STAINLESS STEEL | Ø4.50           | 5.10   |
| D6104-009   | 17-4 PH STAINLESS STEEL | Ø5.25           | 4.10   |
| D6104-011   | 17-4 PH STAINLESS STEEL | Ø6.50           | 4.10   |
|             |                         |                 |        |
|             |                         |                 |        |

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|   |                              |  |  |   |                      |
|---|------------------------------|--|--|---|----------------------|
| CUSTOMER<br>96294   | SHIP DATE<br>08/17/06<br>SHP | GROSS WEIGHT<br>175                            | QUOTE<br>30-169814-1                       | OF 1<br>TEST RESULTS  |                      |
| BILL TO:<br>DART AEROSPACE  |                              | WORK ORDER<br>**                               | ORDER DATE<br>08/10/06 ORD                 |   |                      |
| SHIP TO<br>DART AEROSPACE<br>1270 ABERDEEN ST<br>HAWKESBURY ON CANADA K6A 1K7 |                              | DELIVERY DATE<br>08/17/06 DEL                  | SHIP BRANCH<br>30(04)                      | SELL BRANCH<br>30-TOR   | WORK ORDER<br>U11031 |
| CUSTOMER P.O. NUMBER<br>PO00001813  |                              | TERRITORY<br>01                                | ENTRY ID<br>30MAC                          | 6905 KENDERRY GATE, MISSISSAUGA ONTARIO, CANADA L5T 2Y<br><b>Copper and Brass Sales Canada</b><br>A ThyssenKrupp Materials NA company<br>ThyssenKrupp |                      |
| BUYER<br>CHANTAL LAVOIE   |                              | INSIDE SALES<br>MARIO A. CARREIRO              | QUANTITY<br>INVENTORY                      | ORDERED<br>143.48 LB  | SHIPPED<br>147.00    |
| BUYER TELEPHONE<br>(613) 632-9577   |                              | INSIDE SALES TELEPHONE<br>(905) 532-1440 21423 | BILLING                                    | 16.00 PC  | 16.00                |
| SHIP VIA  |                              | SHIPPING STATUS                                |  |   |                      |
| INTERNAL  | COMPLETE<br>X                | PARTIAL  | CANCEL                                     | WAREHOUSE   |                      |
| TO CUSTOMER<br>COMMON/FRT-CCX   |                              | FOB<br>DEST                                    | PACKED WITH OTHER GOODS                    |   |                      |
| BILL OF LADING  |                              | FREIGHT STATUS<br>PPD                          | FINISHED GOODS LOCATION<br>WARN LABEL:1017 |   |                      |

PART DESCRIPTION: 408853-0  
RD T-17-4 HFRT COND A SS BAR (6" & BELOW), 3-1/4 (+.0468 -0) X 12 FT ML  
-DART AEROSPACE, CUT 3.8" (+.125, -0)  
Mark Cust PART No: D6104-003 on Pkg. , Test Results Attn to: QA Department.

Cust Part: D6104-003

|  |       |                        |       |   |            |           |       |                              |      |       |  |
|--|-------|------------------------|-------|---|------------|-----------|-------|------------------------------|------|-------|--|
| SPECIAL INSTRUCTIONS   |       |                        |       |   |            |           |       |                              |      |       |  |
| "Shipping, do not place any packages or goods on top of our material." |       |                        |       |   |            |           |       |                              |      |       |  |
| FULL   | SCRAP | FILLED BY<br>LMT       |       | PACKED BY                                       |            | Q/A AUDIT |       |                              |      |       |  |
| CUSTOMER RECEIVING HOURS<br>8-3  |       | MAX SKID WEIGHT<br>100 |       | LOADING INSTRUCTIONS<br>HAND, CRANE, FORK, DOCK |            |           |       | MAXIMUM BUNDLE WEIGHT<br>200 |      |       |  |
| BOXES  | BARS  | CASES                  | CUSHP | PKGS  | SKIDS<br>1 | BOLS      | TUBES | CTNS                         | FLAT | COILS |  |
| INSPECTION RECORD  |       |                        |       |   |            |           |       |                              |      |       |  |

### TEST RESULTS

#### CERTIFICATE OF COMPLIANCE

We hereby certify that mercury or any of its compounds are not used in the processing and distribution of our products. The products we distribute are not hazardous in their received state. For MSDS sheets go to [www.copperandbrass.com/msds](http://www.copperandbrass.com/msds) or call 248-233-5682. We hereby certify that the material above complies with the following specifications:

ASTM-A564

AMS 5643

AISI 630

ROHS COMPLIANT

TAG NO QUANTITY UOM VENDOR VEND PO HEAT/LOT  
147.00 LB VALBURN OCE5900 239178 MAXX

PCS ! TAG NO  
!

QUANTITY UOM VENDOR VEND PO HEAT/LOT

PCS

MARY L. TAYLOR General Manager: TORONTO  
COPPER AND BRASS SALES CANADA IS A DIVISION OF THYSSENKRUPP MATERIALS, CA. LTD./LIE

PRINTED 08/16/06 12:18 PM

CONTROL NO 00056

# COPPER AND BRASS SALES

## MATERIAL TYPE STAINLESS STEEL

AISI SERIES  
200 300 400  
AND  
PRECIPIT HARDENING GRADES

### "WARNING"

INHALATION OF FUMES, FRESHLY GENERATED BY THE WELDING OF STAINLESS STEEL CONTAINING ONE OR MORE OF THE FOLLOWING INGREDIENTS, ZINC, MAGNESIUM OR COPPER, ARE KNOWN TO CAUSE METAL FUME FEVER. INHALATION OF DUST OR FUME FROM STAINLESS STEEL CONTAINING ONE OR MORE OF THE FOLLOWING INGREDIENTS, ALUMINUM, IRON, MANGANESE, SELENIUM, OR TIN, HAS ALSO BEEN REPORTED TO CAUSE METAL FUME FEVER AND MAY CAUSE IRRITATION TO THE RESPIRATORY TRACT AND/OR AGGRAVATE PRE-EXISTING CONDITIONS. TARGET ORGAN IS PRIMARILY THE LUNG.

THIS PRODUCT CONTAINS CHROMIUM. EXPOSURE TO CHROMIUM DUST OR FUME MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS AND KIDNEY AND LIVER DAMAGE. UNDER HIGH TEMPERATURES, HEXAVALENT CHROMIUM MAY BE PRODUCED. IF IN THE INSOLUBLE FORM, IT IS A CONFIRMED HUMAN CARCINOGEN. THIS PRODUCT MAY ALSO CONTAIN NICKEL AND COBALT. INHALATION OF NICKEL OR COBALT DUST OR FUME MAY RESULT IN INFLAMMATION OF THE RESPIRATORY TRACT. NICKEL AND COBALT HAVE BEEN IDENTIFIED AS POTENTIAL HUMAN CARCINOGENS.

IF COATED WITH OIL, MAY CAUSE SKIN IRRITATION/DERMATITIS BY CONTACT. WELDING FUME IS LISTED AS A POSSIBLE CARCINOGENIC TO HUMANS.

READ THE STAINLESS STEEL MATERIAL SAFETY DATA SHEET (MSDS) ON FILE WITH YOUR EMPLOYER BEFORE WORKING WITH THIS MATERIAL

- \* If processing or recycling produces particulate, use exhaust ventilation or other controls designed to prevent exposure to workers. Examples of such activities include melting, welding, grinding, abrasive sawing, sanding and polishing. Any activity which abrades the surface of this material can generate airborne particulate. Use respiratory protection (P100, quantitative fit testing required) if exposures exceed the permissible limits.
- \* The Occupational Safety and Health Administration (OSHA) have set mandatory limits on occupational exposures.
- \* Stainless Steel, in solid form and as contained in finished products presents no special health risk.
- \* Sold for manufacturing purposes only. This product can be recycled; contact your sales representative.

The Occupational Safety and Health Administration require employers to provide training in the proper use of this product.

For additional information, call or write to Copper and Brass Sales, 22355 West Eleven Mile Road, Southfield, MI 48033, telephone 248-233-5600, or visit our web site @ [www.copperandbrass.com](http://www.copperandbrass.com).



**VALBRUNA**  
**SLATER STAINLESS, INC.**  
2400 Taylor Street West, P.O. Box 630  
Fort Wayne, Indiana USA 46801  
Phone: 260-434-2892 Fax: 260-434-2905

## Product Certification Report

Report Number: **4078840**

Certified on May 31, 2005 Page 1 of 1

|   |                       |                              |   |                                   |  |
|---|-----------------------|------------------------------|---|-----------------------------------|--|
| Order I.D.<br><b>0500940 001</b>                    |                       | Order Date<br><b>4/29/05</b> |   | Commodity Code<br><b>408853-0</b> |  |
| Dim 1<br><b>3.2500</b>                              | Dim 2<br><b>.0000</b> | Dim 3<br><b>.0000</b>        | Heat I.D.<br><b>239178</b>                      | Customer I.D.<br><b>001155</b>    | Customer Purchase Order<br><b>CE5900</b> |
| Product Shape<br><b>Rounds</b>                      |                       |                              | Product Surface<br><b>HR &amp; Rough Turned</b> |                                   | Customer Grade<br><b>630</b>             |
| Length (Inches)<br><b>132.000 Min. 156.000 Max.</b> |                       |                              | Bill of Lading #<br><b>401376</b>               | Weight                            |  |

Ship  
To

**COPPER ND BRASS SALES**  
**415 STATE PARKWAY**  
**SCHAUMBURG, IL 60173**

Sold  
To

**VALBRUNA CORP.**  
**31 IRON HORSE ROAD**  
**OAKLAND, NJ 07436**

Lifts: 0096

AISI 630

CONDITION A

ASTMA 564-02

ASMESA 564 01 ED 2002 ADD

AMS 2303E

AMS 5643Q ✓

### CHEMICAL ANALYSIS

| C    | Mn  | P    | S    | Si  | Cr    | Ni   | Mo  | Cu   | N   | Cb  | Ta   | Cb+Ta |
|------|-----|------|------|-----|-------|------|-----|------|-----|-----|------|-------|
| .039 | .57 | .026 | .017 | .54 | 15.60 | 4.60 | .18 | 3.35 | .04 | .29 | .001 | .29   |

HB

353

### TENSILE PROPERTIES

#### CAPABILITY

| HB  | TS (PSI) | .2%YS (PSI) | %EL(2") | %RA  | AGE(F) |
|-----|----------|-------------|---------|------|--------|
| 433 | 206000   | 178300      | 14.1    | 50.9 | 900    |

### MAGNETIC PARTICLE TEST

FREQ SEV

AVG .00 .00

MACRO ASTM E340/E381

MACRO

OK

OK

### PERCENT FERRITE

% FERRITE

AVG 1.0

Free of mercury and low melting alloy contamination.

Maxx stainless.

Chemical testing performed to one or several of the following ASTM methods: E415, E572, E1019, E1085, E1086.

Material melted in Italy, manufactured in the United States.

Material conforms to listed specifications.

Quality system is compliant with ISO 9001:2000. Produced in accordance with EN 10204 3.1B.

**COPPER AND BRASS SALES**

SOLD TO: Copper & Brass Sales

DATE: 8/15/06 QTY: 147.00

CUSTOMER PO: PO0000181

SHIPPER NO: 424691

BY: E. R.

Results relate only to the items tested. Certification shall not be reproduced except in full, without written approval of Valbruna Stainless Inc. The recording of false, fictitious, or fraudulent statements on this document may be punished as a felony under federal statutes, including Federal law, Title 18, Chapter 47. Consult material safety data sheet (MSDS) for hazard info. I hereby certify that the reported figures are correct as contained in the records of the corporation.

Manager Laboratory Services

Dennis Hackett  
Dennis Hackett



## CERTIFICATE OF CONFORMITY

SOLD TO:

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, Ont.  
K6A 1K7

SHIPPED TO:

same

| <u>QUANTITY</u> | <u>PART NUMBER</u> | <u>PART NAME</u>                              | <u>P.O. NUMBER</u> |
|-----------------|--------------------|---|--------------------|
| 10              | DSK076             | Support as per Dwg DSK076<br>D6104-003 B28388 | 2068               |
| 8               | DSK076             | Support as per Dwg DSK076<br>D6104-003 B28077 | 2068               |
| 10              | DSK076             | Support as per Dwg DSK076<br>D6104-003 B26715 | 2068               |
| 20              | DSK077             | Support as per Dwg DSK077<br>D6104-003 B28389 | 2068               |
| 8               | DSK077             | Support as per Dwg DSK077<br>D6104-003 B27970 | 2068               |
| 7               | DSK077             | Support as per Dwg DSK077<br>D6104-003 B28078 | 2068               |
| 14              | DSK080             | Support as per Dwg DSK080<br>D6104-011 B27266 | 2068               |

MATERIAL: supplied by DART

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.

  
Shigi (Regula) Walz

Vankleek Hill, September 20, 2006

